E1 cont'd

with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity.

E2

3. (Twice Amended) The isolated nucleic acid according to claim 2, which has a nucleotide sequence encoding the amino acid sequence represented by SEQ ID NO: 2 or 4.

4. (Twice Amended) The isolated nucleic acid according to claim 3, which has a nucleotide sequence represented by SEQ ID NO: 1 or 3.

5. (Amended) A plasmid comprising a nucleic acid comprising

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of 5 x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity.

6. (Amended) An expression plasmid comprising:

(1) a promoter that functions in a host cell,

(2) a nucleic acid comprising

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

E 2 cont'd

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of 5 x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity, and

(3) a terminator that functions in a host cell, operably linked in the above described order.

7. (Amended) A process for constructing an expression plasmid, which comprises combining:

(1) a promoter that functions in a host cell,

(2) a nucleic acid comprising

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of

5 x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity, and

E2 cont'd

(3) a terminator that functions in a host cell, operably linked in the above described order.

8. (Amended) A host cell transformed with the plasmid as defined in claim 5 or 6.

9. (Amended) The host cell according to claim 8, wherein the host cell is a microorganism.

10. (Amended) The host cell according to claim 8, wherein the host cell is a plant cell.

E3

11. (Amended) A process for enhancing iron absorbing ability of a plant cell, which absorbs iron making use of mugineic acid compound, which process comprises

introducing into a plant cell which absorbs iron making use of mugineic acid compounds an expression plasmid formed by combining

(1) a promoter that functions in said cell,

(2) a nucleic acid comprising

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

E3 cont'd

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of 5 x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity, and

(3) a terminator that functions in said cell,

operably linked in the above described order.

E4

13. (Amended) The process according to claim 11, wherein the nucleic acid sequence of the nicotianamine aminotransferase comprises:

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of 5 x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence

E4 cont'd encoding an amino acid sequence having nicotianamine aminotransferase activity.

Please add the following new claim:

E5 --21. (New) An isolated nucleic acid comprising:

(a) a nucleotide sequence encoding an amino acid sequence represented by SEQ ID NO: 2 or 4 and having nicotianamine aminotransferase activity, or

(b) a nucleotide sequence which hybridizes to the nucleotide sequence of (a), when incubated in a solution of 5x Denhart's solution, 5x SSPE and 0.1% SDS at 65°C for 12 hours, washed once with 6x SSP at 65°C for 10 minutes and washed twice with 2x SSP, 0.1% SDS at 42°C for 10 minutes, said nucleotide sequence encoding an amino acid sequence having nicotianamine aminotransferase activity and said nucleotide sequence comprising at least 600 nucleotides.--